



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

ENVIRONMENTAL SERVICES DIVISION
ATHENS, GEORGIA 30613

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May 1, 1992

MEMORANDUM

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SUBJECT: McIntosh Plant Site, Olin Corporation
McIntosh, Alabama
Remedial Investigation/Feasibility Study
Preliminary Site Characterization Study

FROM: John P. McConney *JPMcConney*
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TO: Cheryl W. Smith, Remedial Project Manager
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Waste Management Division

THRU: Wade Knight, Chief *WKnight*
Laboratory Evaluation & Quality Assurance Section

We have reviewed the subject document and have the following comments:

1. Section 2.1.2, pg. 29 - A leader of Teflon coated stainless steel wire should be between the bailer and bailer cord.
2. Section 2.1.2, pg. 30 - The decontamination procedure for the purging pump was inadequate; for the complete procedure see Appendix B, Section B.7.2, of "Engineering Compliance Branch Standard Operating Procedures and Quality Assurance Manual." This procedure involves decontaminating the pump by pumping soapy water, tap water and then deionized water through the pump. The exterior of the pump should be washed with these cleaning fluids. This procedure should be followed in the field as well as in the washroom.
3. Section 2.1.2, pg. 30 and 31 - The decontamination procedure for the Teflon bailers is inadequate. The following steps should be inserted between steps 2 and 3 on page 31: an acid rinse of 10% HNO₃, followed by a tap water rinse.
4. Section 2.2.3.1, pg. 42 - Was the Ekman dredge constructed of stainless steel?
5. Section 2.2.3.1, pg. 43 - The sediment subsurface cores should have been collected in stainless steel tubes.

6. Section 4.1.2.1, pg. 89 - The use of the "B" flag associated with validated inorganic data is not comparable with data validated by USEPA and is potentially confusing. The B flag is typically removed during validation and the CRQL is adjusted appropriately.
7. Section 4.1.2.3, pg. 101
 - a. Considering the number and amount of semivolatile (SV) compounds detected in the on-site monitoring wells, the domestic wells should have been tested for SV compounds in the initial sampling event.
 - b. The McIntosh City water well is located within the three-mile perimeter surrounding the site; was this well tested? If not, then this well should be tested when the 12 wells that contained volatile organic compounds are retested.
8. Section 4.2.2.1, pg. 113 - The compounds pentachlorobenzene and pentachloronitrobenzene (PCNB) were detected in sediment samples as tentatively identified compounds (TICs). Due to the methodology used, the reported amounts of these compounds is estimated. In paragraph 2, the amounts of these compounds is compared to that of target compound list (TCL) compounds. The reported amount of TCL compounds is not an estimate, unless the amount is qualified during data validation. Because of the fact that the reported amount of the TCL compounds is not an estimate and the reported amount of the TIC compounds is an estimate, it is not legitimate to compare the amounts of these types of compounds, as was done in the document. Furthermore, since pentachlorobenzene and PCNB are contaminants of concern at this site, these compounds should be added to the TCL compound list so that an accurate determination of the compound amount can be made when analyzing samples collected at the site in the future.
9. Section 4.2.2.1, pg. 114 - A number of pesticide compounds were found in sediment samples, ground water samples, surface water samples, and fish samples collected at the site. Except for the surface water section, this document does not explicitly state that these compounds will be included in the Baseline Risk Assessment for the site. Considering the relatively high amount of these compounds, the pesticide compounds should be included in the Baseline Risk Assessment.
10. Section 4.2.2.1, pg 114 and 115 - The document states that additional sediment samples were collected and "screened" by BCM laboratories for three chlorinated

benzene compounds. No "screening" method is listed in Table 1 of the Analytical Method Summary in Volume II. In addition, no data reporting forms are included in Volume II. The only analytical information regarding this sample "screening" that is provided in the document is a list of results in Appendix F. Additional information regarding these analyses needs to be provided before the results of this "screening" can be used when evaluating the site.

11. Volume II, Section 1 - The third group of sediment samples, SDG 9151 Case WCC collected November 13 and 15, 1991, were not analyzed for pesticide/PCB compounds. This is a serious omission. Analysis of previously collected samples showed the presence of high amounts of several pesticide compounds in sediment samples collected at the site. One of the samples in this SDG contained sufficient p,p'-DDD to be identified as a TIC in the semivolatile fraction analysis.
12. Volume II, all sections - The following comments concern validation issues that pertain to the analytical data.
 - a. Many of the samples had successful pesticide compound GC/MS confirmations performed. Functional Guidelines require that the "C" data qualifier be assigned to the pesticide results in these cases. Apparently, this qualifier was not assigned to any of the pesticide results.
 - b. The qualification of all 2-butanone values as undetected with the qualifier "U" or as estimated concentrations with the qualifier "J" based solely on the assumption that this compound is a common solvent and a known contaminant of methanol is not always appropriate. If this was the case, this compound would be present in the associated blanks. The presence of this compound in the associated blanks was reported in only one group of sediment samples that were analyzed in November of 1991. Great care must be taken in assigning these qualifiers if this compound is not present in the associated blanks.
 - c. The qualification of reported detects of polynuclear aromatic hydrocarbons (PAHs) as undetected with the qualifier "U" based solely on the three assumptions listed in the document is not legitimate. Validation of analytical data should be based only on analytical considerations.

- d. The criteria that pesticide values must be at least twice the sample CRQL to be reported is not always appropriate, especially for water samples. This decision should be based on the individual sample.
- e. The criteria that tentatively identified compounds (TICs) must be "of possible interest for the project site" to be reported is not legitimate. The reason that this analysis is performed is to see if compounds other than the TCL compounds are present. Preconceived notions of what is and what is not present at the site should not influence the data validation process.
- f. The criteria that phthalate compounds must be present in amounts greater than 12 times the CRQL, 4000 ug/Kg, or 100 ug/L to be reported is not always appropriate. Unless this compound is present in the associated blanks, care should be taken when qualifying the reported amounts of phthalate compounds.